REF. NO. 3407

ONKYO SERVICE MANUAL

STEREO CASSETTE TAPE DECK

MODEL TA-2830

Black and Silver model

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PARTS NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

SPECIFICATIONS

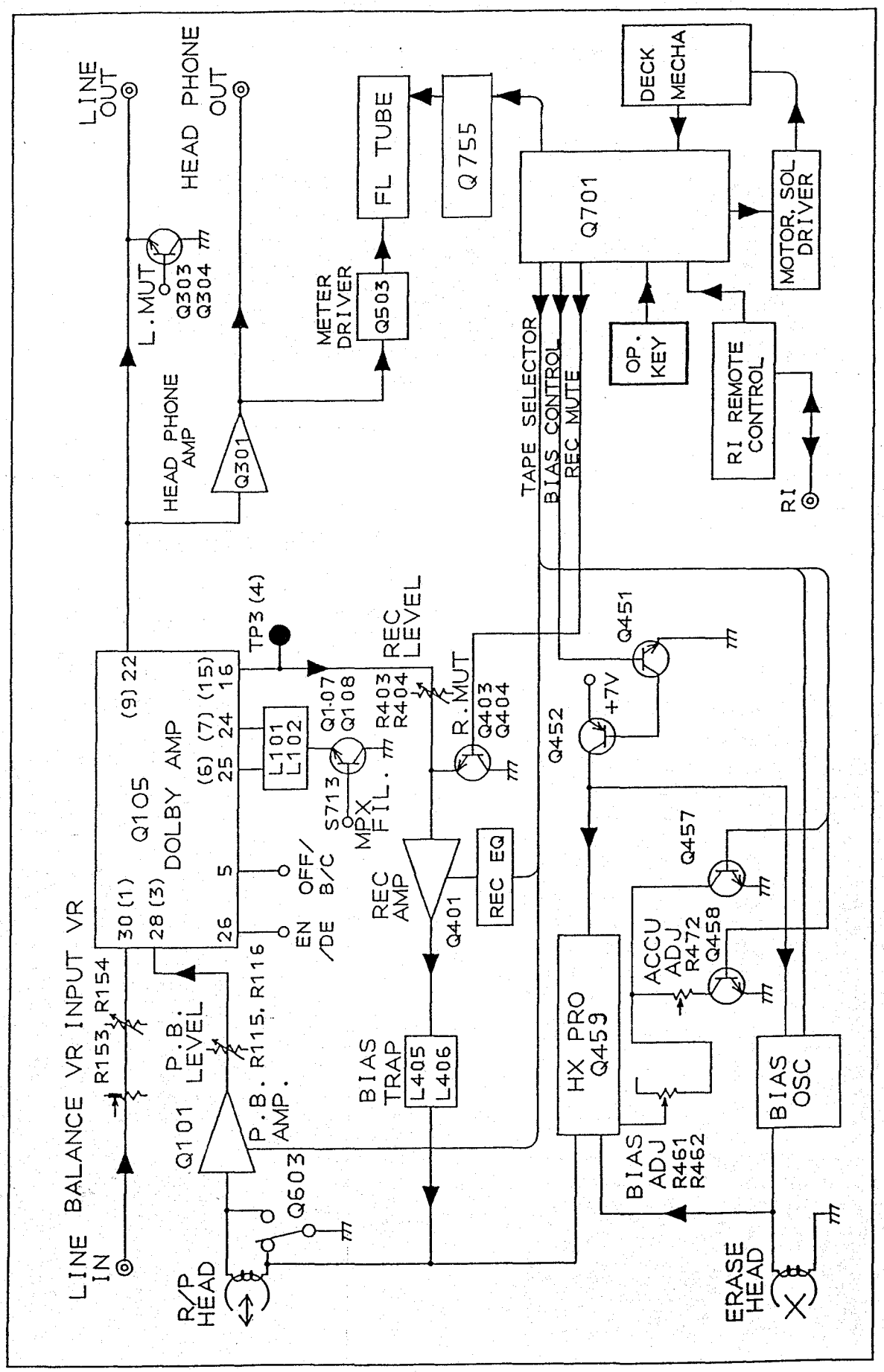
Track Format:	4-tracks, 2-channels
Erasing System:	AC erase
Tape Speed:	4.8 cm/sec. (1-7/8 i.p.s)
Wow and Flutter:	0.07% (WRMS)
Frequency Response:	20—17,000Hz (Normal) (30—16,000Hz ±3dB) 20—18,000Hz (High) (30—17,000Hz ±3dB) 20—19,000Hz (Metal) (30—18,000Hz ±3dB)
S/N Ratio:	58dB (metal tape, Dolby NR off) A noise reduction of 10dB above 5kHz and 5dB at 1kHz is possible with Dolby B NR, A noise reduction of 20dB at 5kHz is possible with Dolby C NR.
Input Jacks:	Line IN: 2 Input sensitivity: 80mV Input impedanse: 50kohms
Outputs:	Line OUT: 2 Standard output level: 500mV (0dB) Optimum load impedance: over 50 kohms Headphone jack: 1 Optimum load impedance: 8 to 200 ohms
Motors:	DC servo motor: 1 DC motor: 1
Heads:	REC/PB: Special Hard Permalloy × 1; Erase head: Ferrite×1
Power Supply Rating:	AC 230V, 50Hz
Power Consumpiton:	17 watts
Dimensions:	455(W)×120(H)×308(D)mm (17-15/16" ×4-3/4" ×12-1/8)
Weight:	5.1g. (11.2lbs.)

Specifications and external appearance are subject to change without notice because of product improvements.

ONKYO®
AUDIO COMPONENTS

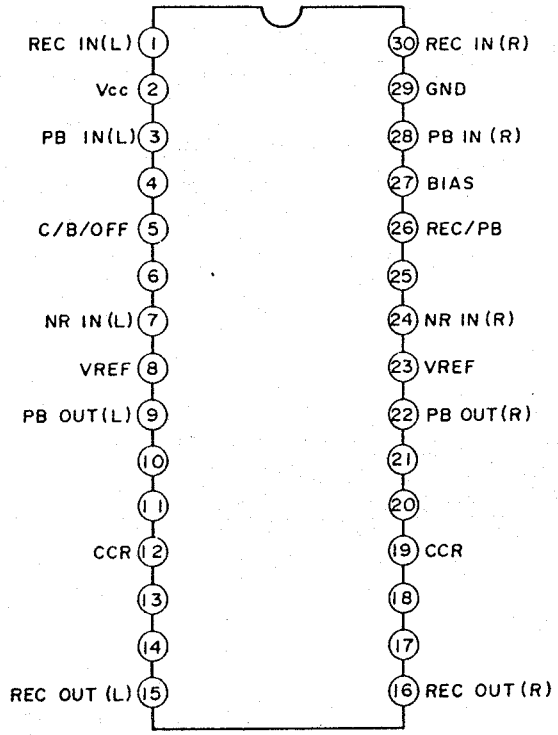
without notice because of product improvements.

BLOCK DIAGRAM

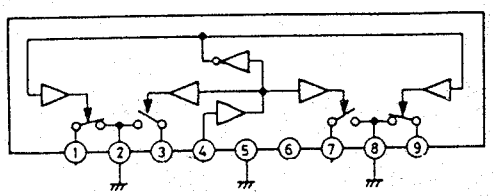


IC BLOCK DIAGRAM

HA12142NT (DOLBY NR)



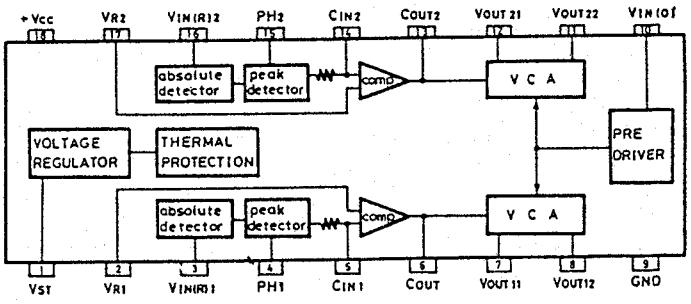
μPC1330HA (REC/PB SW)



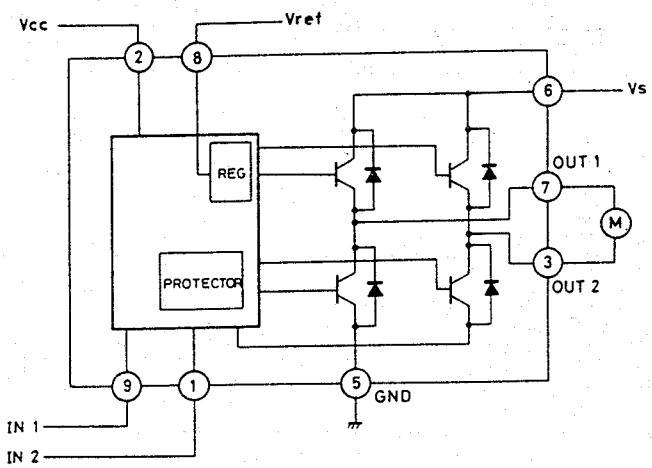
μPC133HA

Pin No.	Function
1, 9	PB. signal
2	GND
3, 7	REC signal
4	REC/PB SW control
5	GND
6	+B
8	GND

μPC 1297CA (HX PRO)

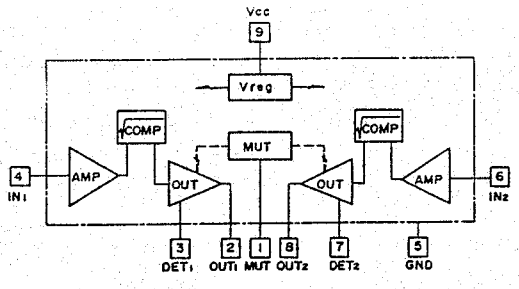


TA7291S (MOTOR DRIVE)

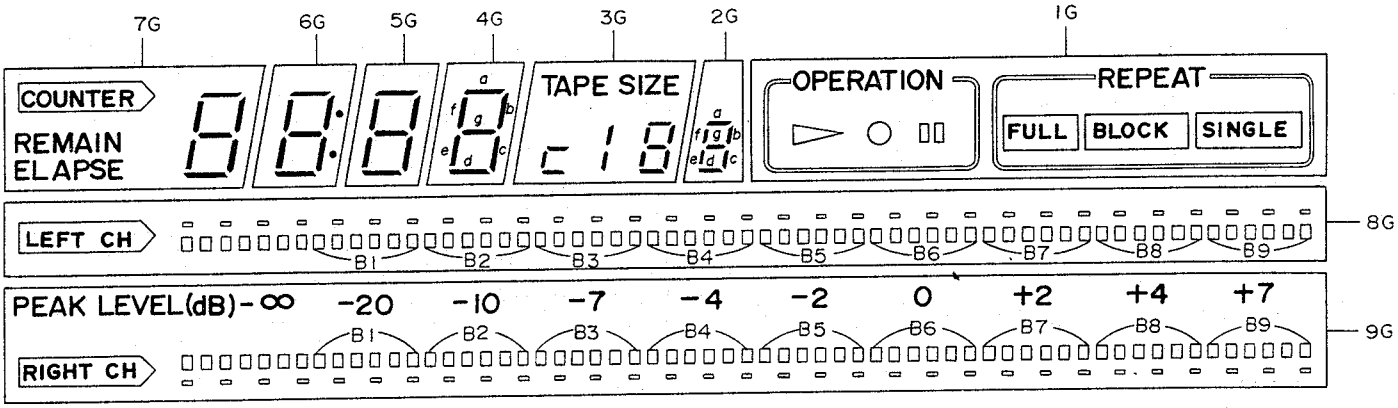


INPUT		OUTPUT		MODE
IN1	IN 2	OUT 1	OUT 2	
0	0	∞	∞	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

BA6138 (METER DRIVE)



BG-923GK (DISPLAY TUBE)



PIN CONNECTION

PIN.NO.	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNECTION	F2	F2	P	NP	9	8	7	6	5	4	3	2	1	C	C	C	P	P	P	P	P	P	P	P	C	C	C	G	G	G	G	G	G	G	G	P	P	1	NP	NP	F1	F1

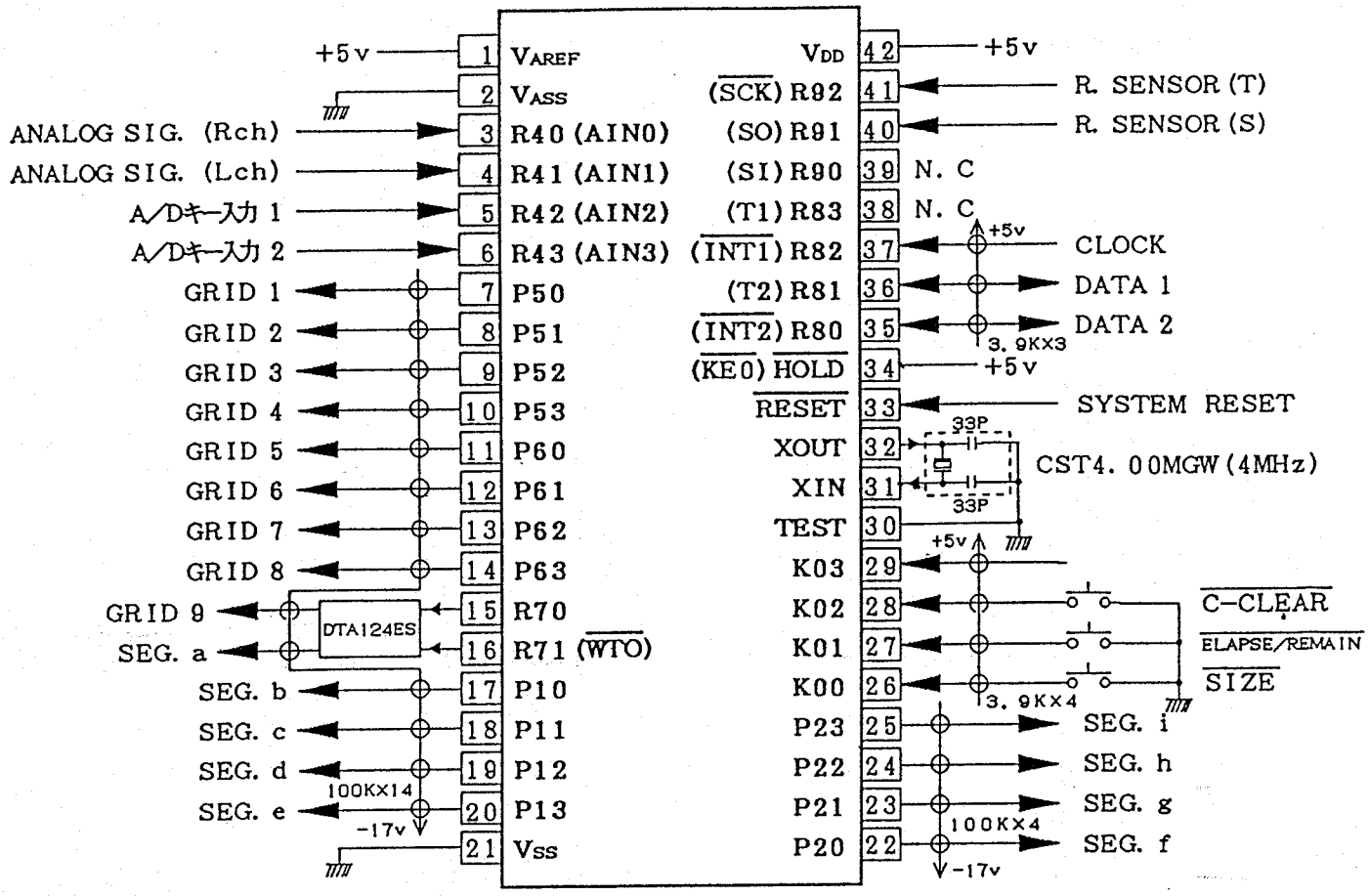
NOTE 1) F1,F2 --- Filament
2) NP ------ No pin
3) NC ------ No connection
4) 1G~9G --- Grid

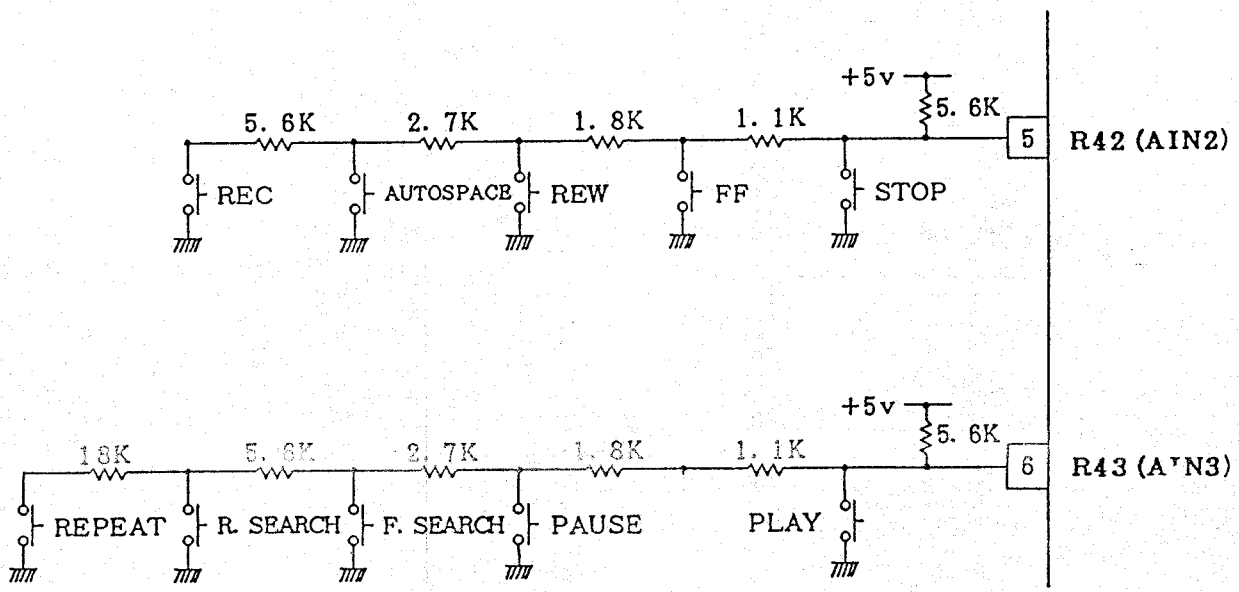
ANODE CONNECTION

	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	B1	B1	a	a	a	a	a	a	▷
P2	B2	B2	b	b	b	b	b	b	○
P3	B3	B3	c	c	c	c	c	c	▯▯
P4	B4	B4	d	d	d	d	d	d	-
P5	B5	B5	e	e	e	e	e	e	FULL
P6	B6	B6	f	f	f	f	f	f	BLOCK
P7	B7	B7	g	g	g	g	g	g	SINGLE
P8	B8	B8	REMAIN	° ° (col)	-	-	/	-	-
P9	B9	B9	ELAPSE	-	-	-	-	-	-

MICRO COMPUTER (COUNTER)

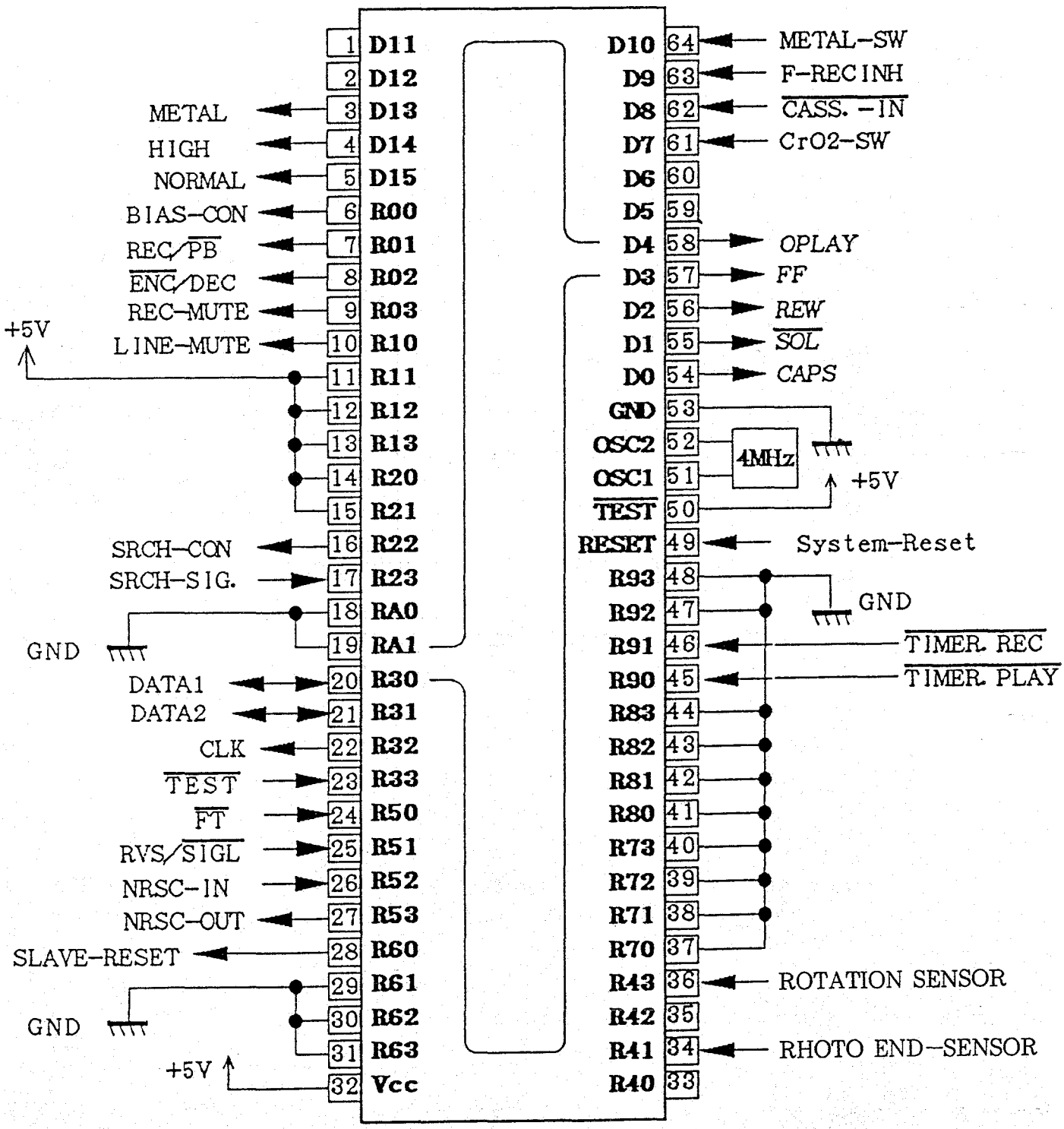
TMP47C441AN1637





MICRO COMPUTER (MASTER)

HD614089SC56



MICRO COMPUTER (MASTER)

HD614089SC56

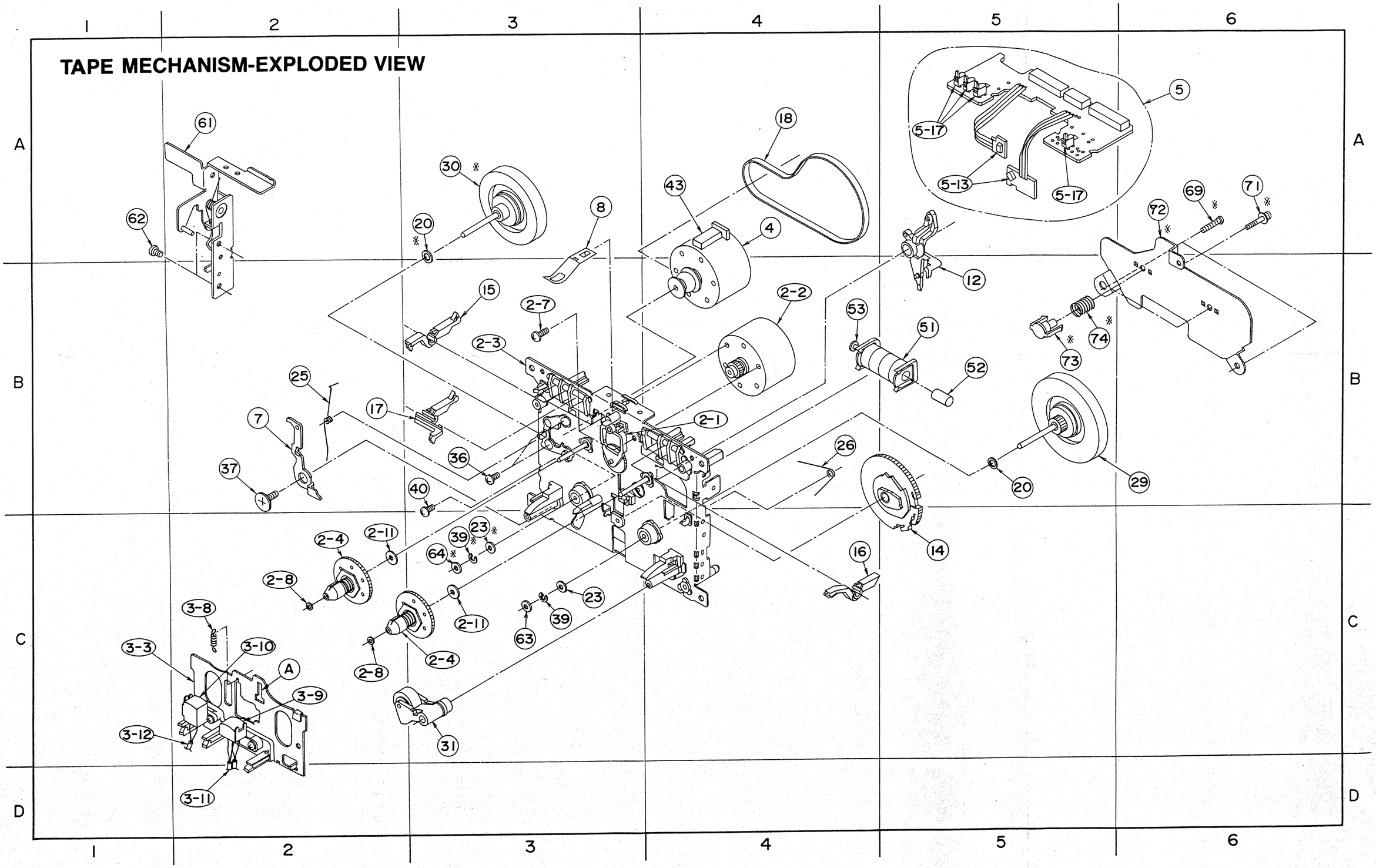
No.	Name	IN/OUT	Function
1	NC		
2	NC		
3	METAL	OUT	Metal tape selector H
4	HIGH	〃	High 〃 〃
5	NORMAL	〃	Normal 〃 〃
6	BIAS-CON	OUT	Bias oscillation control H:ON
7	REC/$\overline{PB}$	〃	REC/PB selection
8	$\overline{ENC}$/DEC	〃	Dolby ENC/DEC selector
9	REC-MUTE	OUT	Recording muting H:ON
10	LINE-MUTE	〃	Line output muting H:ON
11~15	NC		
16	SRCH-CON	OUT	Search gein control H:PLAY
17	SRCH-SIG	IN	Search signal input
18~19	NC		
20	DATA1	IN/OUT	Master−slave commuincation date
21	DATA2		Master−slave commuincation clock output
22	CLK	OUT	
23	$\overline{TEST}$	IN	
24	$\overline{FT}$	〃	
25	RVS/$\overline{SIGL}$	〃	RVS deck :H
26	NRSC-IN	IN	
27	NRSC-OUT	OUT	
28	SLAVE-RESET	OUT	Slave micon reset
29~31	NC		
32	VCC		+5V
33	NC		
34	POFF	IN	Power 055 micon reset
35	NC		
36	ROTATION SENSOR	IN	Reel rotation sensor
37~44	NC		
45	$\overline{TIMER\text{-}PLAY}$	IN	Timer Play :L
46	$\overline{TIMER\text{-}REC}$	〃	Timer Rec :L
47~48	NC		
49	RESET	IN	
50	$\overline{TEST}$		System reset for microcomputer
51	OSC1		System clock OSC
52	OSC2		
53	GND		
54	CAPS	OUT	Capstan motor control H:ON
55	$\overline{SOL}$	〃	Solenoid drive L:ON
56	REW	〃	Reel motor rotation in rewind
57	FF	〃	Reel motor rotation fast forward
58	OPLAY	〃	Reel motor rotation PLAY with H
59			
60	NC		
61	HIGH-SW	IN	Tape selector
62	CASS-IN	〃	Cassette loading detection
63	F-REC INH	〃	Recording prevention side−A
64	METAL-SW	〃	Tape selector

TAPE MECHANISM PARTS LIST

REF.NO.	ADDRESS	PARTS NO.	DESCRIPTION
2-1	B4	24602482	IDLER AS
2-2	B4	24601245	REEL MOTOR
2-3	B3	24611382A	BASE AS (CHASSIS)
2-4	C2	24602483	BASE AS (REEL)
2-7	B3	24609032	PAN HEAD SCREW 2.6×6.4ZN
2-8	C2	24611177	PLASTIC WASHER 1.7×3.2×.25
2-11	C3	24611175	PLASTIC WASHER 2.1×7×.25
3-3	C1	24611501	BASE (HEAD)
3-8	C2	24605711	SPRING
3-9	C2	24600067	R/P HEAD
3-10	C2	24600032	E HEAD
3-11	D2	24606466	WIRE CONNECTOR (R/P)
3-12	C1	24606477	WIRE CONNECTOR (E)
4	A4	24601253	MAIN MOTORAS
5	A6	24606478	P.C.B.AS (CONTRO)
5-13	A5	24606463	PHOTO REFLECTOR
5-17	A5	24606271	PUSH SWITCH
7	B2	24607102	ARM (EJECT) L
8	A3	24605739	SPRING
12	B5	24607116	ARM (PLAY)
14	C5	24602485A	CAM GEAR (3R)
15	B3	24603365A	LEVER (REC)
16	C4	24603366	LEVER (PACK) L
17	B2	24603367	LEVER (METAL) L
18	A4	24602543	BELT (MAIN) (P)
18	A4	24602542	BELT (MAIN) (D)
20	A3,B5	24611041	PLASTIC WASHER 2.6×0.25
23	C3	24610841	PLASTIC WASHER 2.6×4.7×.5
25	B2	24605714	SPRING
26	B4	24605716	SPRING
29	B6	24602487	FLYWHEEL AS
30	A3	24602544	FLYWHEEL AS (P)
31	C3	24602541	PINCHROLLER AS
36	B3	24609001	PAN HEAD SCREW SW 2.6×5ZN
37	B2	24609006A	SCREW
39	C3	8930151	E WASHER 1.5S
40	B3	838130080	WAVE SCREW 3×8
43	A4	24611488	CUSHION (HOLDER)
51	B5	24606333	SOLENOID COIL AS
52	B5	24606332A	CORE
53	B4	24606331	PLANGER
61	A2	24611447	PLATE HOLDER AS
62	A1	833126049	TAP-TIGHT SCREW 2.6TTP+4C
63	C3	24611188A	WASHER (OIL SEAL)
64	C3	24610844	WASHER 1.9×5×0.25 (P)
69	A6	838126080	SCREW 2.6×8 (P)
71	A6	24609042	S-TIGHT SCREWM 2.6×25 (P)
72	A6	24607118	BRACKET (F/W) (P)
73	B5	24611504	THRUST WASHER (P)
74	B5	24605763	SPRING (THRUST) (P)

NOTE
D:120V Model
P:230V Model

TAPE MECHANISM-EXPLODED VIEW



ADJUSTMENT PROCEDURES

PRECAUTIONS

1. Before adjustment, clean the following parts with an alchol moinstend awab.
   * record／play back head * erase head
   * pinch roller * capstan
2. Do not use magnetized screwdriver for adjustments.
3. Demagnetize record／playback head with a liead demagnetizer.

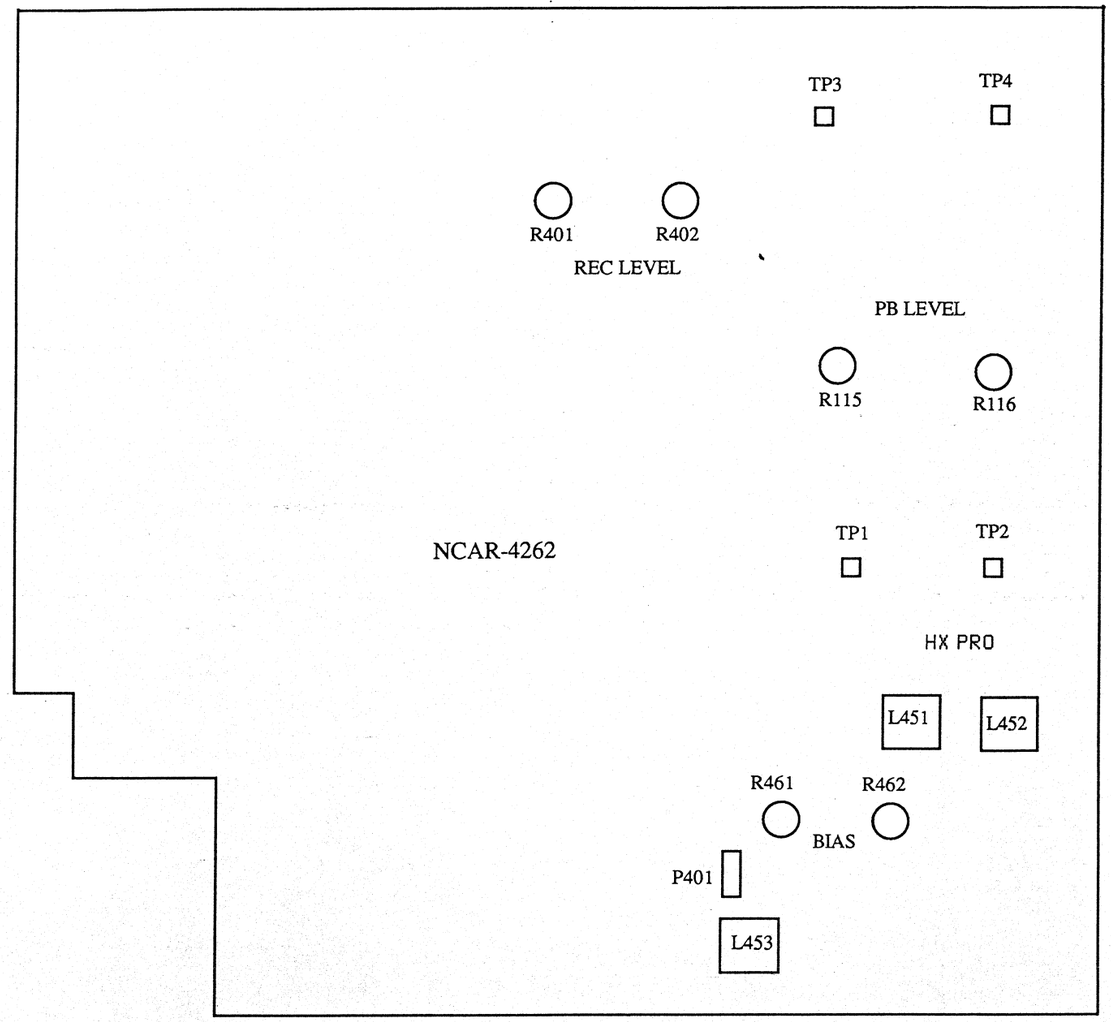
TEST EQUIPMENT／TOOLS REQUIRED:

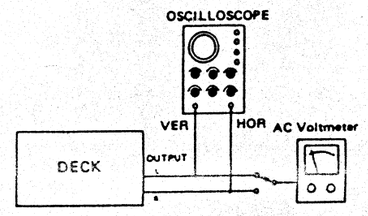
Audio oscillator
Digital frequency counter
Oscilloscope
Attenuator
AC voltmeter
Non-magnetic screw driver
Test tapes
TCC-153 : 10KHz, -15dB
MTT-111 : 3kHz, -10dB
MTT-150 : Dolby level calibration 400Hz, tone 200nWb／m

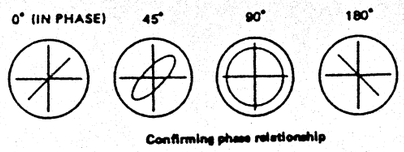
Item		Connection of instrument	Line input	Test tape	Mode	Output indicator	Adjustment point	Adjust	Remaks
1	Tape speed	Frequency counter to LINE output terminal		MTT-111	PB	Frequency counter	Semi-fixed on the moter	3010Hz	
2	Head azimuth	AC voltmeter and oscilloscope to LINE output terminal		TCC-153	PB	AC voltmeter	Haed azimuth screw	Maximum and same phase at channels L and R	fig-1
3	Playback level	AC voltmeter to terminals TP-3 and TP-4		MTT-150	PB	AC voltmeter	R115 (Ch.L) R116 (Ch.R)	300 mV	
4	OSC Block	Frequency counter to P401 read loose coupling			REC	Frequency counter	L453	85kHz ±2kHz	
5	HX-PRO	AC voltmeter to terminals TP-1 and TP-2		METAL TAPE	REC	AC voltmeter	L-451 (Ch.L) L-452 (Ch.R)	Maximum	R-461 R-462 Maximum
6	Bias current	fig-2	1kHz, -20dB and 12kHz, -20dB	NORMAL TAPE	REC／PB	AC voltmeter	R461 (Ch.L) R462 (Ch.R)	Same level at REC／PB	Input VR maximum
7	Record level	fig-2	1kHz	NORMAL TAPE	REC	AC voltmeter	Attenutor or AF OSC output	350 mV	
					REC／PB	AC voltmeter	R401 (Ch.L) R402 (Ch.R)	Same level at REC／PB	

Blank tape

NORMAL ····· UD-1 C-90
HIGH ····· XL-5II C-90
METAL ····· XS-C60
PLAY torque ····· 30～70g／cm
FF.REW torque ····· 80～180g／cm
Back tention ····· 2～7g／cm







Confirming phase relationship

fig-1

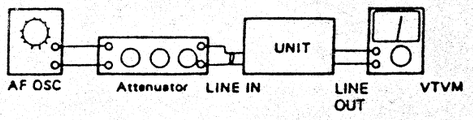


fig-2

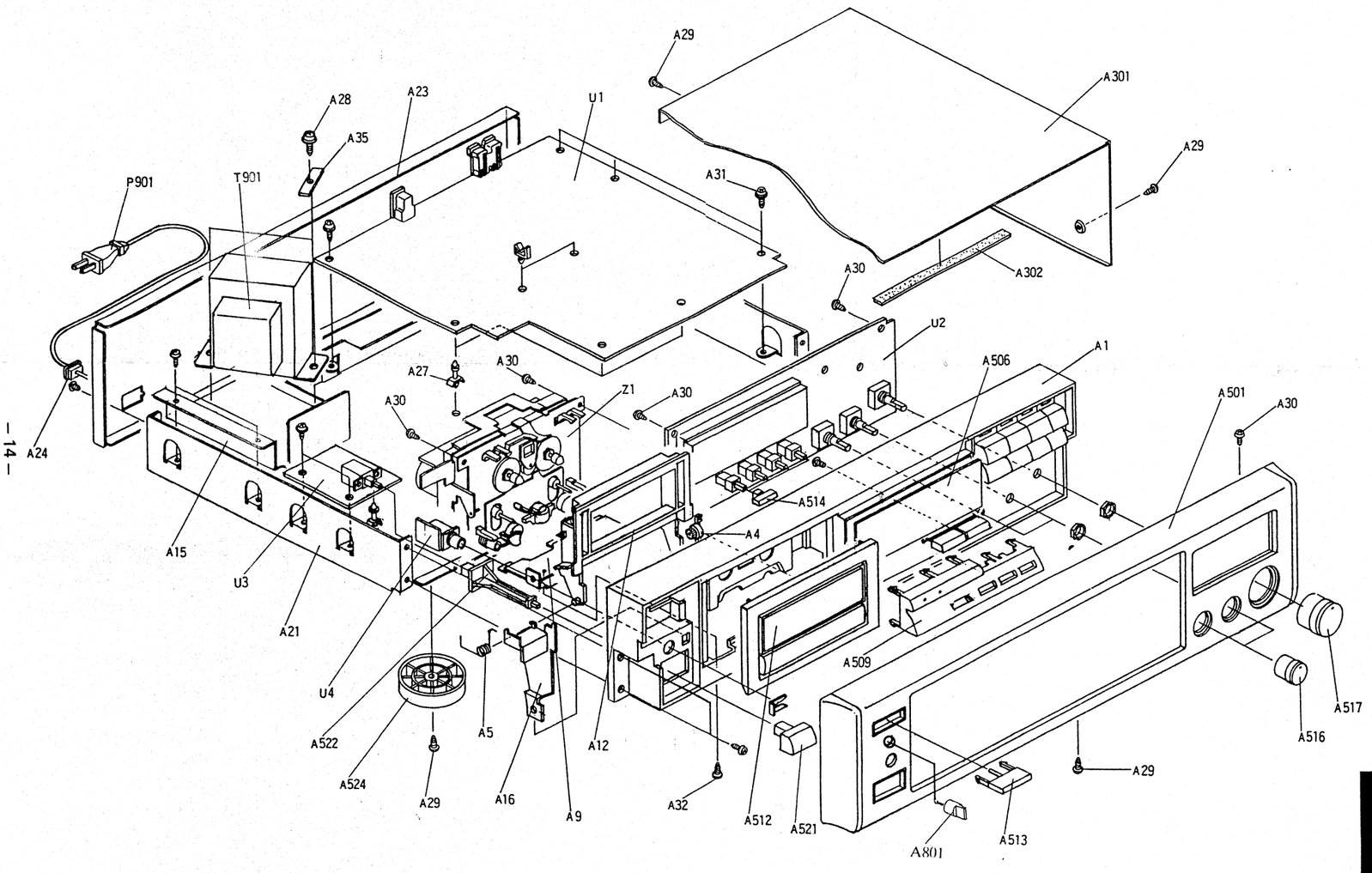
CHASSIS-EXPLODED VIEW PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
A1	27110648	FRONT BRACKET AS (B)
	27110649	FRONT BRACKET AS (S)
A4	28400282	DAMPER
A5	27180478	SPRING (B)
A9	27130646C	BRACKET (F)
A12	28400473-1A	FRAME AS (CASSETTE)
-a	28400463B	FRAME (CASSETTE)
-b	27180435	SPRING
-c	28141109	CUSHION
A15	27130608D	BRACKET (PT)
A16	27273137	JOINT (EJ)
A21	27100233	CHASSIS
A23	27121490	BACK PANEL
A24	27300750	BUSHING (CORD)
A27	27190480	HOLDER
A28	830440089	TAP-TIGHT SCREW 4TTC+8CBC
A29	834430088	TAP-TIGHT SCREW 3TTS+8BBC
A30	833430080	TAP-TIGHT SCREW 3TTP+8PBC
A31	831130088	TAP-TIGHT SCREW 3TTW+8B
A32	835430068	TAP-TIGHT SCREW 3TTF+6BBC
A35	870065	PT WASHER
A301	28184479	TOP COVER
A302	28140837	CUSHION 250×10×.9t
A501	1N113121	FRONT PANEL (B)
	1N114121	FRONT PANEL (S)
A506	28191594A	CLEAR PLATE
A509	27267745	GUIDE AS (VOL) (B)
	27267746	GUIDE AS (VOL) (S)
A512	28400640	CASSETTE LID AS (B)
	28400641	CASSETTE LID AS (S)
A513	28323985	KNOB (EJ) (B)
	28314337	KNOB (EJ) (S)
A514	28324325	KNOB (DOL) (B)
	28324326	KNOB (DOL) (S)
A516	28324150-1	KNOB (LEV) (B)
	28324151	KNOB (LEV) (S)
A517	28324335A	KNOB (INP)(B)
	28324336	KNOB (INP) (S)
A521	28324140	KNOB (POW) (B)
	28324184	KNOB (POW) (S)
A522	27273136	JOINT (POW)
A524	27175254	LEGAS
A801	28324432	KNOB (TIM) (B)
	28324433	KNOB (TIM) (S)
P901 ⚠	253149	AC CORD AS-CEE
T901 ⚠	2300643	NPT-1105P
U1	1N111562-1	NAAR-4262-1
U2	1N111563-1	NADIS-4263-1
U3	1N111564-1	NAPS-4264-1
U4	1N111565-1	NAETC-4265-1
Z1	244159	CASSETTE DECK MECHANISM,NDM-149

NOTE
(B):Black model
(S):Silver model

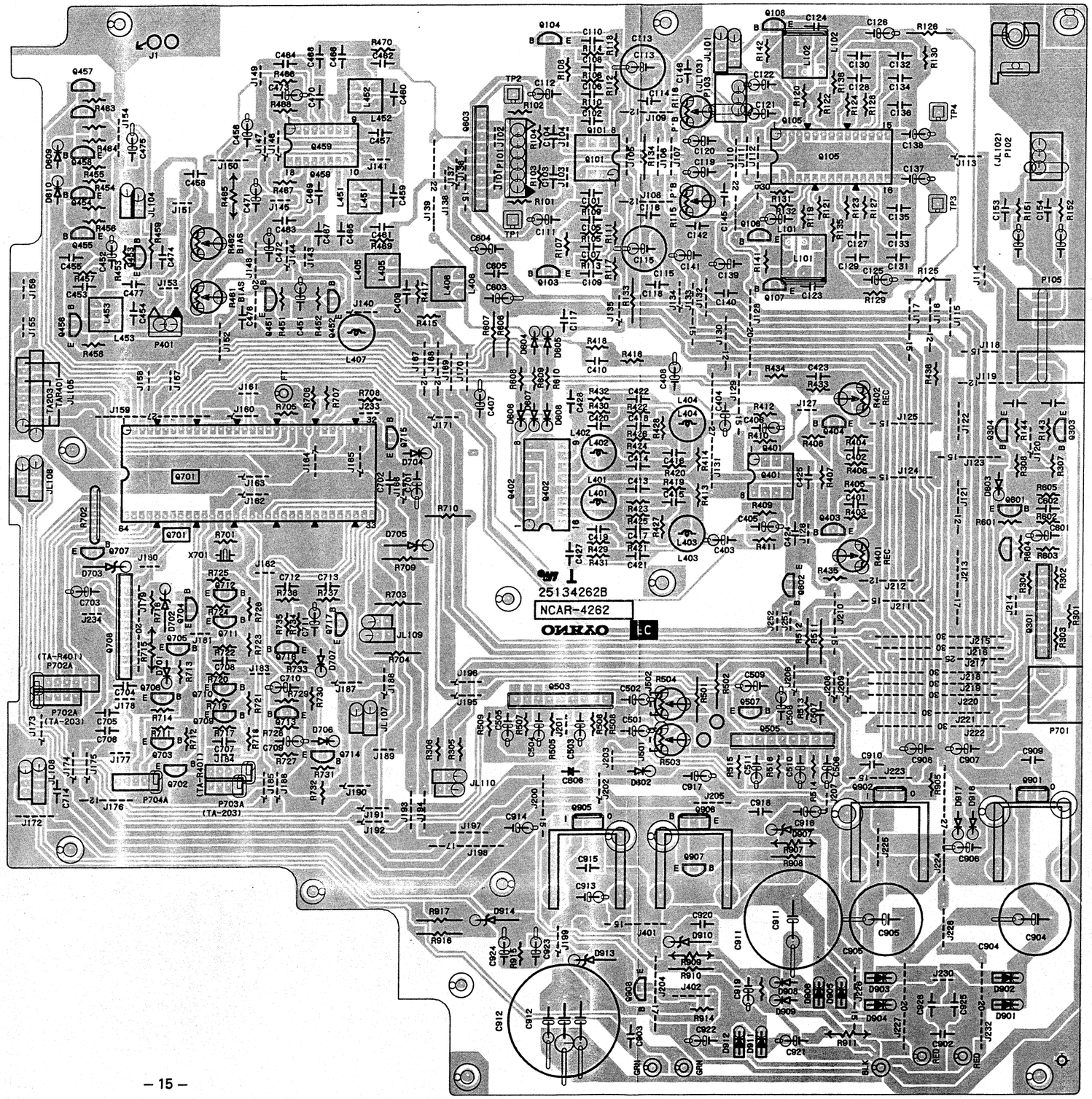
NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

CHASSIS-EXPLODED VIEW

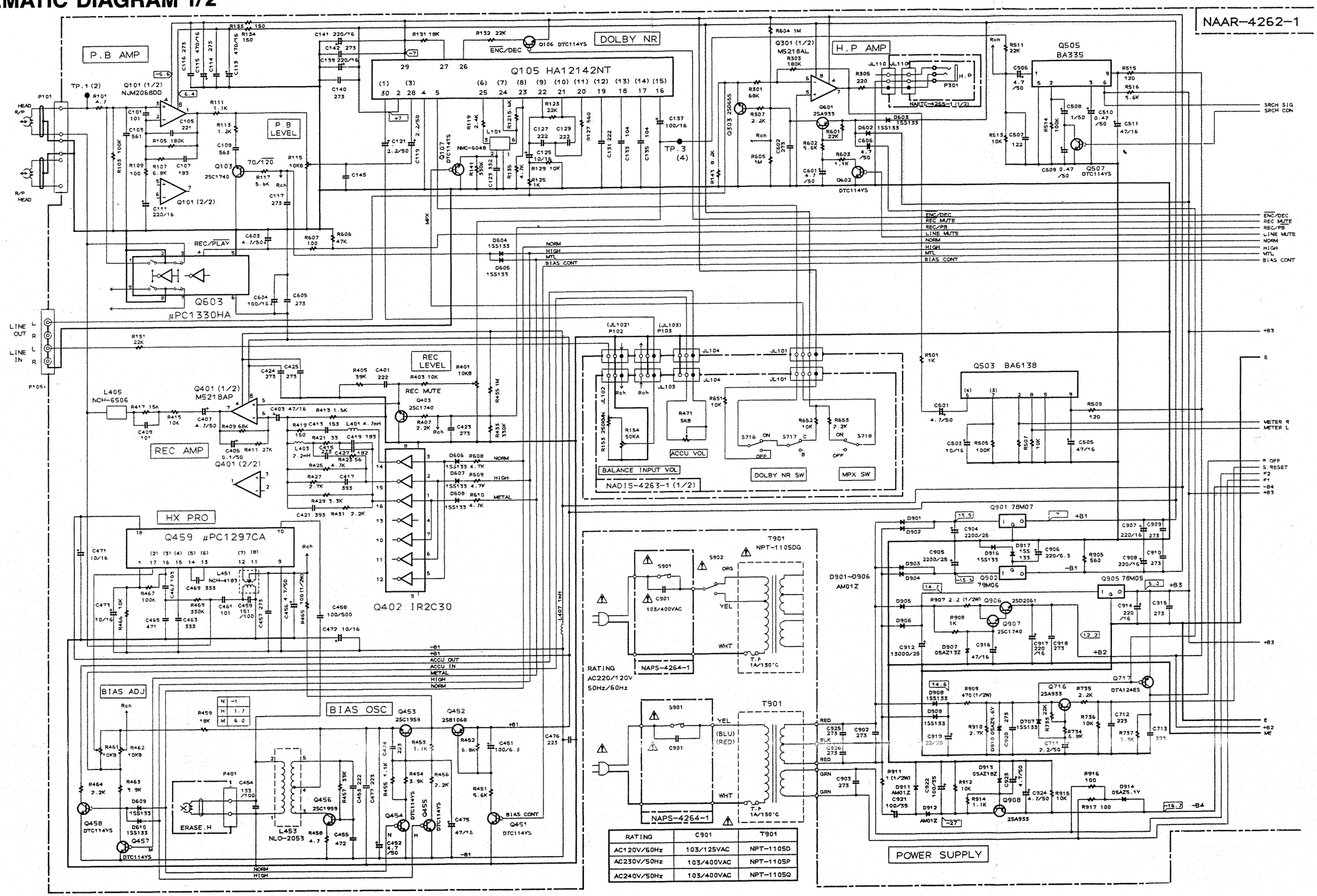


PC BOARD VIEW FROM BOTTOM SIDE

NAAR-4262-2



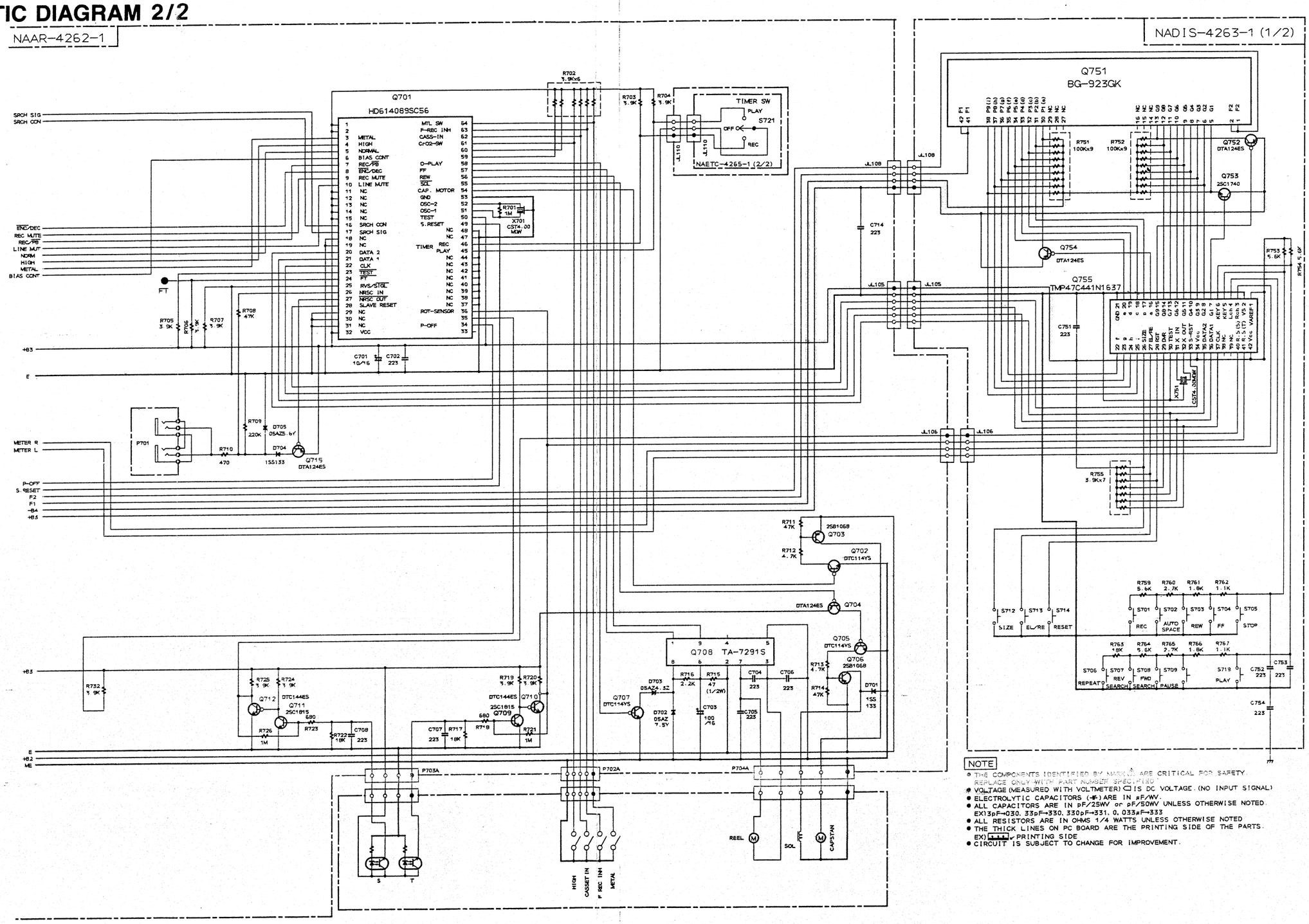
SCHEMATIC DIAGRAM 1/2



RATING	C901	T901
AC120V/60Hz	103/125VAC	NPT-1105D
AC230V/50Hz	103/400VAC	NPT-1105P
AC240V/50Hz	103/400VAC	NPT-1105Q

ONKYO CORPORATION

SCHEMATIC DIAGRAM 2/2



NOTE

- THE COMPONENTS IDENTIFIED BY MARK △ ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLTMETER) □ IS DC VOLTAGE. (NO INPUT SIGNAL)
- ELECTROLYTIC CAPACITORS (+) ARE IN μF/WV.
- ALL CAPACITORS ARE IN pF/25WV or pF/50WV UNLESS OTHERWISE NOTED.
  EX) 3pF→030, 33pF→330, 330pF→331, 0.033μF→333
- ALL RESISTORS ARE IN OHMS 1/4 WATTS UNLESS OTHERWISE NOTED
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.
  EX) ▭▭▭ PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

PC BOARD PARTS LIST

NAAR-4262-2

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	Ics	
Q101	222956	NJM-2068D-D
Q105	22240388	HA12142NT
Q301	22240368	M5218AL
Q401	22240369	M5218AP
Q402	22240240	IR2C30
Q459	222959	μPC1297CA
Q503	22240313	BA6138
Q505	222940	BA335H
Q603	22240147	μPC1330HA
Q701	22240518	HD614089SC56
Q708	22240239	TA-7291S
Q901	222780075MIT	78M07L
Q902	222790065JRC	79M06
Q905	222780055MIT	78M05
	Transistors	
Q103,Q104	2213284 or	2SC1740S-R or
	2213285	2SC1740S-S
Q106	221281 or	DTC114YS or
	2213570	RN1207
Q107,Q108	221299	DTC114TS
Q303,Q304	2211706	2SD655-F
Q403,Q404	2213284 or	2SC1740S-R or
	2213285	2SC1740S-S
Q451	221281 or	DTC114YS or
	2213570	RN1207
Q452	2212853 or	2SB1068-K or
	2212855	2SB1068-U
Q453	2211544	2SC1959-Y
Q454,Q455	221281 or	DTC114YS or
	2213570	RN1207
Q456	2211544	2SC1959-Y
Q457,Q458	221281 or	DTC114YS or
	2213570	RN1207
Q507	221281 or	DTC114YS or
	2213570	RN1207
Q601	2213354 or	2SA933S-R or
	2213355	2SA933S-S
Q602	221281 or	DTC114YS or
	2213570	RN1207
Q702	221281 or	DTC114YS or
	2213570	RN1207
Q703	2212853 or	2SB1068-K or
	2212855	2SB1068-U
Q704	2212600 or	DTA124ES or
	2213580	RN2203
Q705	221281 or	DTC114YS or
	2213570	RN1207
Q706	2212853 or	2SB1068-K or
	2212855	2SB1068-U
Q707	221281 or	DTC114YS or
	2213570	RN1207
Q709	2211255	2SC1815-GR
Q710	221282 or	DTC144ES or
	2213560	RN1204
Q711	2211255	2SC1815-GR
Q712	221282 or	DTC144ES or
	2213560	RN1204
Q713	2211255	2SC1815-GR
Q714	2213284 or	2SC1740S-R or
	2213285	2SC1740S-S
Q715	2212600 or	DTA124ES or
	2213580	RN2203

CIRCUIT NO.	PART NO.	DESCRIPTION
Q716	2213354 or	2SA933S-R or
	2213355	2SA933S-S
Q717	2212600 or	DTA124ES or
	2213580	RN2203
Q906	2202115 or	2SD2061-E or
	2202116	2SD2061-F
Q907	2213284 or	2SC1740S-R or
	2213285	2SC1740S-S
Q908	2213354 or	2SA933S-R or
	2213355	2SA933S-S
	Diodes	
D602-D610	223163	1SS133
D701	223163	1SS133
D702	224150752	05AZ7.5Y
D703	224150433	05AZ4.3Z
D704	223163	1SS133
D705	224150562	05AZ5.6Y
D706,D707	223163	1SS133
D901-D906	22380046	AM01Z
D907	224151303	05AZ13Z
D908,D909	223163	1SS133
D910	224150562	05AZ5.6Y
D911,D912	22380046	AM01Z
D913	224151803	05AZ18Z
D914	224150512	05AZ5.1Y
D916,D917	223163	1SS133
	Coils	
L101,L102	233313	NMC-6048
L401,L402	231085	NCH-2133
L403,L404	231081	NCH-2129
L405,L406	231165	NTR-6506
L407	231077	NCH-2125
L451,L452	231127	NCH-4183
L453	231180	NLO-2053
X701	3010150	CST4.00MGW
	Capacitors	
C111,C112	391942217	220μF16V,ELECT.
C113	391944717	470μF16V,ELECT.
C115	391944717	470μF16V,ELECT.
C119-C122	391980227	2.2μF50V,ELECT.
C125,C126	391941007	10μF16V,ELECT.
C137,C138	391941017	100μF16V,ELECT
C139,C140	391942217	220μF16V,ELECT.
C403,C404	391944707	47μF16V,ELECT.
C405,C406	391981097	0.1μF50V,ELECT.
C407,C408	391980477	4.7μF50V,ELECT.
C451	391921017	100μF6.3V,ELECT.
C452	391980477	4.7μF50V,ELECT.
C454	370131234	0.012μF100V,APS
C456	391980477	4.7μF50V,ELECT.
C459,C460	370131514	150PF100V,APS
C471-C473	391941007	10μF16V,ELECT.
C475	391944707	47μF16V,ELECT.
C501,C502	391941007	10μF16V,ELECT.
C503,C504	391941007	10μF16V,ELECT.
C505	391944707	47μF16V,ELECT.
C506	391980477	4.7μF50V,ELECT.
C508	391980107	1μF50V,ELECT.
C509,C510	391984797	0.47μF50V,ELECT.
C511	391944707	47μF16V,ELECT.

CIRCUIT NO.	PART NO.	DESCRIPTION
C601	391980477	4.7μF50V,ELECT.
C603	391980477	4.7μF50V,ELECT.
C604	391941017	100μF16V,ELECT
C606	352950476	4.7μF25V,NP.
C701	391941007	10μF16V,ELECT.
C703	391941017	100μF16V,ELECT
C709	391921017	100μF6.3V,ELECT.
C710	391980477	4.7μF50V,ELECT.
C711	391980227	2.2μF50V,ELECT.
C904,C905	391952227S	2200μF25V,ELECT.
C906-C908	391942217	220μF16V,ELECT.
C912	3504168	13000μF25V,ELECT.
C914	391942217	220μF16V,ELECT.
C916	391944707	47μF16V,ELECT.
C917	391942217	220μF16V,ELECT.
C919	391962207	22μF35V,ELECT.
C921,C922	391961017	100μF35V,ELECT.
C923,C924	391980477	4.7μF50V,ELECT.
	Resistors	
R115,R116	5210217	N06HR10KBD
R401,R402	5210217	N06HR10KBD
R461,R462	5210217	N06HR10KBD
R465	442521014F	RS1/2WBJ100Ω
R702	49163392406	RM1/10IJ3.9KΩ×6
R716	442524704F	RS1/2WBJ47Ω
R907	442520224F	RS1/2WBJ2.2Ω
R909	442524714F	RS1/2WBJ470Ω
R911	442520104F	RS1/2WBJ1Ω
	Plug,socket,jack	
P101	25055136	NPLG-6P120
P102,P103	25050267	NSCT-3P95
P105	25045338	NPJ-4PDBL189
P401	25055132	NPLG-2P116
P701	25045330	NPJ-2PDBL184
P702A	2000966	NSAS-14P918
P703A	2002321020	NSAS-10P0241
P704A	2002341020	NSAS-10P0034
	Miscellaneous	
	27160211	RAD68,RADIATOR
	82143006	3P+6FN(BC)
	27141059	BRACKET
	27301271	MSC-1609,CLAMP
	27190713	UAMS-11-0,CLAMP

NADIS-4263-2

CIRCUITNO.	PARTSNO.	DESCRIPTION
	Displaytube	
Q751	212098	BG-923GK
	Ic,transistors	
Q752	2212600 or	DTA124ES or
	2213580	RN2203
Q753	2213284 or	2SC1740S-R or
	2213285	2SC1740S-S
Q754	2212600 or	DTA124ES or
	2213580	RN2203
Q755	22240519	TMP47C441AN1637
Q758	24130003	GP1V50XS

CIRCUIT NO.	PART NO.	DESCRIPTION
	LED	
D751,D752	225137CG,	SEL-2413E-CG,
	225137DG or	SEL-2413E-DG or
	225137DY	SEL-2413E-DY
	Xtal	
X751	3010150	CST4.00MGW
	Resistors	
R153	5104289	N14RGLC250KMN17Z
R154	5104251	N14RGL50KA17Z
R471	5104290	N14RGLC5KB17Z
R751,R752	49163104409	100KΩ×9,1/10W
R755	49163392407	3.9KΩ×7,1/10W
	Switch,holder	
S701-S714	25035548	NPS-111-510,PUSH
S715-S718	25035611	NPS-122-L573,PUSH
	27190838A	HOLDER(FL)
	27190839	HOLDER(LED)

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CIRCUIT NO.	PARTS NO.	DESCRIPTION
C901	3500065A	0.01μF,AC400V,IS
S901	25035558	NPS-111-520P,PUSH
	25060092	NMT-1S33,TERMINAL

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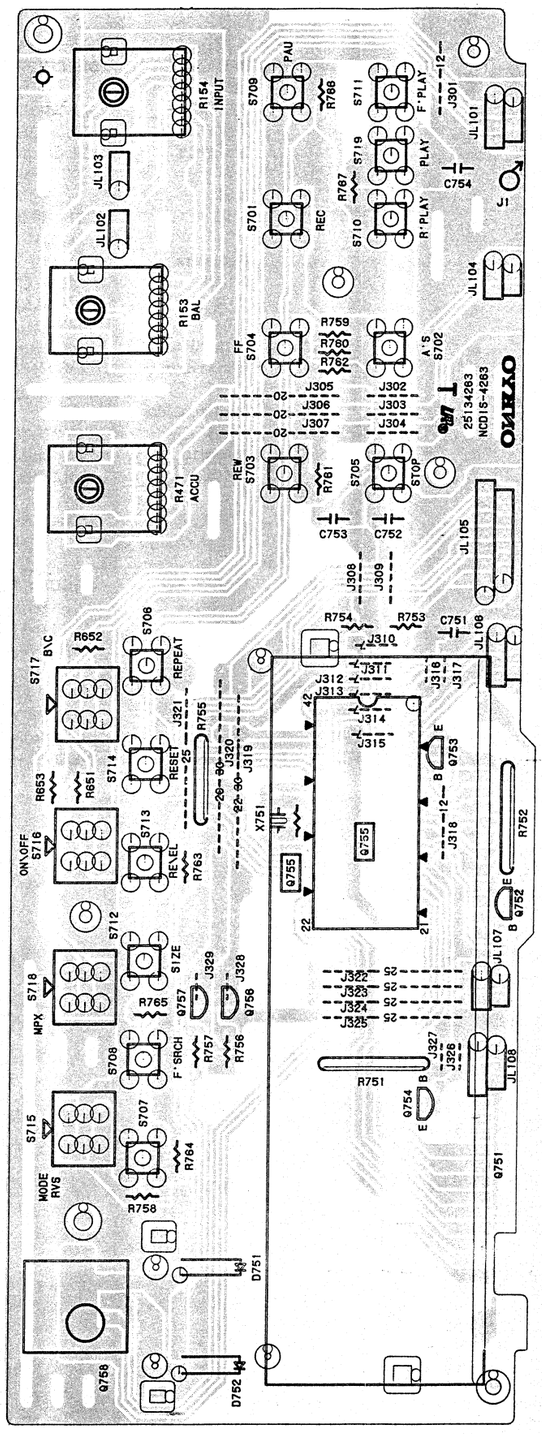
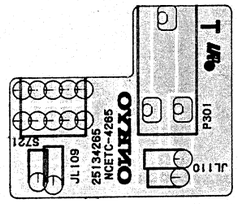
CIRCUIT NO.	PARTS NO.	DESCRIPTION
P301	25045139	HLJ-0540-01-010
S721	25030350	NRSF-123-20SBM

PC BOARD VIEW FROM BOTTOM SIDE

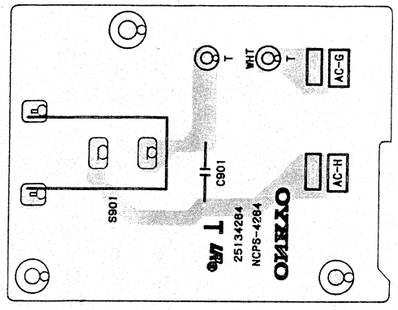
NADIS-4263-2



NAETC-4265-2

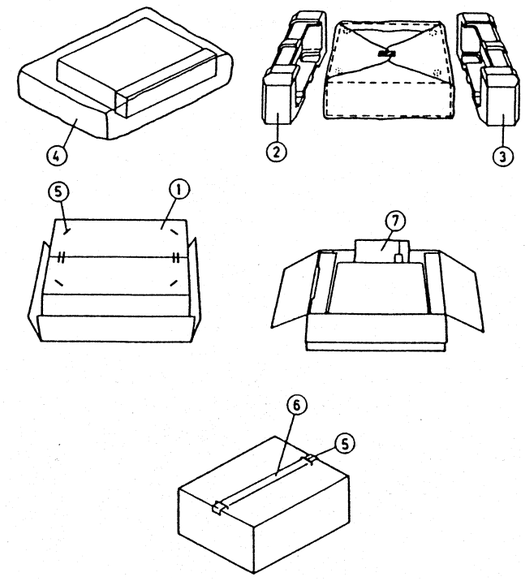


NAPS-4264-2



TA-2830

PACKING VIEW



PART LIST

REF. NO.	PART NO.	DESCRIPTION
1	29052280	Master carton box (Black model)
	29052282	Master carton box (Silver model)
2	29091452B	Pad (L)
3	29091453B	Pad (R)
4	29100105	620×550 Poly bag
5	282301	Sealing hook
6	29110071-1	Damplon tape
7	**Accessary bag ass'y**	
	29341656	Instruction manual
	201Q098A	Connection cable
	29365020E	Warranty card
	29100094A	Poly bag

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